WORKING INFORMATION FOR THE USE OF BROVIRA PAPER

General Information.—Brovira is a rapid bromide paper which has won widespread recognition for its beauty, ease of handling and the depth and richness of its blacks. The paper has a rapid bromide emulsion which is exceptionally clean working and which has remarkable latitude in exposure and development.

Brovira is supplied in several grades of contrast and a variety of surfaces, as shown in the following table:

	SOFT For Contrasty Negatives	MEDIUM For Normal Negatives	HARD For Soft Negatives	EXTRA HARD For Extra Soft Negatives
SINGLE WEIGHT				
Glossy	7431	7432	7433	7434
Velvet	7511	7512	7513	7514
DOUBLE WEIGHT				
Glossy	7031	7032	7033	—
Velvet	7211	7212	7213	7214
Matte White	7051	7052	7053	7054
Silk White	7111	7112	—	—
Royal White	7251	7252	7253	7254
Crystal White	7171	7172	7173	—
Porcelain White	7191	7192	—	—
Kashmir White	7261	7262	7263	—
Kashmir Ivory	7271	7272	7273	—

Precautions.— Handle and develop Brovira in orange or other standard bromide paper safelight, such as that provided by the Agfa Safelight Filter No. 104 with a 25-watt lamp. Safelights that are used for contact printing paper are generally unsafe and should not be used.

When in doubt as to the suitability of the safe-light, test as follows:

Cover half of a small piece of Brovira paper and expose the uncovered half to the safelight for a period of 2 minutes at the usual working distance. Then develop for 1½ minutes in darkness or with the emulsion side of the test strip down in the tray. If the exposed half turns gray, the safelight should not be used. Also, it should be remembered that the soft and

medium grades of Brovira are more sensitive to light than the hard and extra hard grades.

Exposure.— The soft grades of Brovira require slightly less printing time than the hard grades, as indicated by the following comparison—if correct exposure for a negative on Brovira Soft is 3 seconds, the corresponding exposure on Brovira Medium will be 4 seconds, on Brovira Hard 5 seconds and on Brovira Extra Hard 10 seconds.

Development.—For convenience in development, it is recommended that Brovira be developed in Agfa 125 Prepared Developer or Agfa 103 Prepared Developer. These Prepared Developers are packaged in metal containers and need only to be dissolved in water for use. For those who prefer to mix their own developers, several Agfa formulas are given below.

Exposure of the paper should be controlled so that the enlargement will develop within the recommended times. This will insure rich blacks and a full scale of tones.

However, the contrast of Brovira can be varied considerably by varying exposure and development time. If a more brilliant print is desired, the printing time should be decreased and the developing time increased. If a softer print is desired, the printing time should be increased and the developing time decreased.

For best results, all solutions should be kept as close as possible to a temperature of 70° Fahrenheit (21° C.).

AGFA 125

(FORMERLY B - 5)

STANDARD DEVELOPER FOR BROVIRA PAPER

STOCK SOLUTION

	Metric	*Avoirdupois*
Hot Water (125° F. or 52° C.)	750 cc.	24 ounces
Agfa Metol	3 grams	45 grains
Agfa Sodium Sulphite, anhydrous	44 grams	1½ ounces
Agfa Hydroquinone	12 grams	¼ oz. 60 gr.
Agfa Sodium Carbonate, monohydrated	65 grams	2¼ ounces
Agfa Potassium Bromide	2 grams	30 grains
Water to make	1 liter	32 ounces

For use, dilute 1 part stock solution with 2 parts water. Normal developing time, 1 to 2 minutes at 70° Fahrenheit (21° C.).

For softer results, dilute 1 to 4. Develop 1½ to 3 minutes, at 70° F. (21° C.).

AGFA 103

(FORMERLY N - 103)

Recommended especially for news and commercial work.

STOCK SOLUTION

	Metric	*Avoirdupois*
Hot Water (125° F. or 52° C.)	750 cc.	24 ounces
Agfa Metol	3.5 grams	50 grains
Agfa Sodium Sulphite, anhydrous	57 grams	1¾ oz. 50 gr.
Agfa Hydroquinone	11.5 grams	¼ oz. 55 gr.
Agfa Sodium Carbonate, monohydrated	78 grams	2½ oz. 35 gr.
Agfa Potassium Bromide	1.2 grams	18 grains
Water to make	1 liter	32 ounces

For use, dilute 1 part stock solution with 1 part water. Normal developing time, 45 sec. to 1½ minutes at 70° Fahrenheit (21° C.).

AGFA 120

(FORMERLY B - 20)

SOFT WORKING PAPER DEVELOPER

STOCK SOLUTION

This developer is primarily intended where soft gradation is required, but it is recommended particularly for use in conjunction with Agfa 125 developer for a two tray developing procedure, which is explained below.

	Metric	*Avoirdupois*
Hot Water (125° F. or 52° C.)	750 cc.	24 ounces
Agfa Metol	12.3 grams	¼ oz. 70 gr.
Agfa Sodium Sulphite, anhydrous	36 grams	1 oz. 88 gr.
Agfa Sodium Carbonate, monohydrated	36 grams	1 oz. 88 gr.
Agfa Potassium Bromide	1.8 grams	27 grains
Water to make	1 liter	32 ounces

For soft results, dilute 1 part stock solution with 2 parts water. Normal development time 1½ to 2 minutes at 70° Fahrenheit (21° C.).

TWO TRAY DEVELOPING PROCEDURE

The above standard developers will give satisfactory prints under normal conditions with average negatives.

In certain instances, however, it is desirable to have even greater control of print gradation than which is possible by variation of exposure and developing time, and with various paper contrasts. By the use of a very soft developer in one tray and a brilliant developer in another tray, it is possible to get a much greater amount of control. By starting development in Agfa 120, a soft developer, and finishing in Agfa 125, diluted 1 to 2, the desired control can be effected. Experience will show the length of time that various prints should be left in the respective developers.

ACID SHORT-STOP BATH

Best results will be secured by the use of an Acid Short-Stop bath between developer and fixer. The solution stops development and prevents staining of the prints. It should be kept fresh.

	Metric	*Avoirdupois*
Water	1 liter	32 ounces
Acetic Acid 28%	45 cc.	1½ ounces

Glacial Acetic Acid may be diluted to 28% concentration by adding 3 parts of acid to 8 parts of water.

AGFA 201

ACID HARDENING FIXER

This hardening fixer may be stored indefinitely and used repeatedly until exhausted. If the fixing bath froths, or turns cloudy, it must be replaced by a fresh solution. Dissolve chemicals thoroughly in order given.

Solution 1

	Metric	*Avoirdupois*
Hot Water (125° F. or 52° C.)	2 liters	½ gallon
Hypo	960 grams	2 pounds

Solution 2

Warm water about 125° F. (52° C.)	600 cc.	20 ounces
Agfa Sodium Sulphite, anhydrous	60 grams	2 ounces
Acetic Acid 28%	180 cc.	6 ounces
Agfa Potassium Alum	60 grams	2 ounces

Add solution 2 to 1, stirring rapidly.

Add water to make	4 liters	1 gallon

Prints should fix completely in 5 to 10 minutes. Agitate prints occasionally during fixation.

WASHING AND DRYING

After fixation, wash prints thoroughly, for at least 30 to 60 minutes in running water. In the case of mechanical dryers, it should always be kept in mind that the use of excessive heat is to be avoided, as this may prove injurious to the print and interfere with obtaining standard tones and quality.

TONING

AGFA 220

(Formerly ST-20)

For Sepia Tones by Re-Development

Directions. — Make the print in the usual manner with particular care given to proper exposure and normal development. Then fix thoroughly, wash for 30 to 60 minutes in cold running water, and bleach in the following solution.

BLEACHING SOLUTION

	Metric	*Avoirdupois*
Potassium Ferricyanide 10% Solution*	300 cc.	9½ ounces
Potassium Bromide 10% Solution*	20 cc.	¾ ounce
Water to make	1 liter	32 ounces

Immerse the print in the bleaching solution for about one minute—until the middle tones are but faintly perceptible, and the blackness has faded from the shadows.

After bleaching, rinse the print thoroughly in clean cold water and place in the following Re-Developing Bath.

RE-DEVELOPING BATH

	Metric	*Avoirdupois*
Water	1 liter	32 ounces
Agfa Sodium Sulphide	10 grams	¼ oz. 40 gr.

When original detail has returned and print is of desired strength (this will take about 30 seconds), remove print, rinse thoroughly and harden by immersion for 5 minutes in the hardening solution specified for use in connection with the fixing bath (The Agfa 201 Acid Hardening Fixer *without hypo*). Finally remove the print and wash for 15 to 30 minutes in cold running water and dry in the usual manner.

Important. — Be sure to use SODIUM SULPHIDE, not SODIUM SULPHITE in compounding the re-developer. Also, use clean trays, free from exposed iron spots, especially with Bleaching Bath. Otherwise, blue spots may form on prints.

* For convenience in mixing the Bleaching Bath, make up a 10% solution of Potassium Ferricyanide and Potassium Bromide, then mix to proportion before use. A 10% solution is made by dissolving 1 ounce of chemical in 9 ounces of water.

PREPARED SEPIA TONER

Brovira Toner, which has been designed especially for use with Brovira, produces beautiful and highly distinctive tones with this paper. The toner is supplied in concentrated form in 4 or 8 ounce sizes, each package containing directions for use.

Bleaching powders for use with Agfa Prepared Brovira Toner are also supplied in prepared tubes which need only to be dissolved in water for use.

USE TESTED CHEMICALS

Agfa Chemicals are pure, dependable and laboratory tested to insure complete satisfaction in use. They dissolve rapidly to form clear solution which will give best results in your photographic work.

AGFA CHEMICALS

LABORATORY TESTED

AGFA ANSCO CORPORATION

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